LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-29 (Canceled).

30. (New) An oscillating sprinkler unit, comprising:

a sprinkler head mounted for rotation and including arc control contact elements for controlling an arc of oscillation of the sprinkler; and

a drive assembly including

at least one rotating driver for driving said sprinkler head in alternate directions,

a shiftable carrier for engaging alternate driving positions with the at least one rotating driver,

a shifting arm movable by the arc control elements for alternately shifting the shiftable carrier between the driving positions, and

a biasing mechanism for retaining the shiftable carrier in a selected one of said driving positions until the shifting carrier is shifted to the other driving position by said shifting arm.

31. (New) An oscillating sprinkler unit as set forth in Claim 30, wherein said biasing mechanism is comprised of a cam and a follower engageable with said cam on opposite sides of a center position for biasing and retaining said carrier in a selected one of said alternately engageable positions.

32. (New) An oscillating sprinkler transmission comprising:

an output driving ring;

a shiftable gear carrier which is movable between two positions and includes

a shiftable drive gear which remains in continuous engagement with the output driving ring in the two positions of the gear carrier,

two counter-rotating input gears for alternate driving engagement with the drive gear to oscillate the output driving ring; and a reversing toggle mechanism separately movable from the gear carrier and movable between two positions corresponding to the two positions of the gear carrier, for shifting the gear carrier between two positions thereof so as to change the direction of rotation of the output driving ring by shifting the drive gear from engagement with one input gear to be engaged with the other input gear.

33. (New) An oscillating sprinkler transmission as set forth in claim 32, further comprising an overcenter spring mounted between the toggle device and the gear carrier for biasing the gear carrier in one position with the drive gear engaged with one input gear until the toggle device is moved from one position thereof toward the second position thereof against the bias of the overcenter spring to overcome the bias such that the toggle device and the gear carrier are simultaneously caused to move to the respective other positions, whereby a continuous driving force between the drive gear and output driving ring is achieved.

34. (New) An oscillating sprinkler transmission as set forth in claim 32, wherein

the toggle device is pivotable about a first axis between the two positions thereof, and

the gear carrier is pivotable about a second axis between the two positions thereof, the second axis being parallel to but offset from the first axis.

35. (New) An oscillating sprinkler transmission as set forth in claim 33, wherein

the output driving ring has an axis of rotation which is coincident with the first axis, and

the second axis is located within the driving ring radially outwardly from the axis of rotation thereof.

36. (New) An oscillating sprinkler transmission as set forth in claim 32, wherein the gear carrier and the toggle device are separately pivotable around the same axis.

37. (New) A rotary drive sprinkler comprising:

a sprinkler housing for receiving a supply of water and having an output shaft; and a nozzle assembly for directing water therefrom, the output shaft of the sprinkler housing connected to the nozzle assembly to deliver the water from the sprinkler housing to the nozzle assembly, the nozzle assembly including

an output driving ring,

a shiftable gear carrier which is movable between two positions and includes

a shiftable drive gear which remains in continuous engagement with the output driving ring in the two positions of the gear carrier,

two counter-rotating input gears for alternate driving engagement with the drive gear to oscillate the output driving ring,

a reversing toggle device separately movable from the gear carrier and movable between two positions corresponding to the two positions of the gear carrier, for shifting the gear carrier between two positions thereof so as to change the direction of rotation of the output driving ring by shifting the drive gear from engagement with one input gear to be engaged with the other input gear,

an overcenter spring mounted between the toggle device and the gear carrier for biasing the gear carrier in one position with the drive gear engaged with one input gear until the toggle device is moved from one position thereof toward the second position thereof against the bias of the overcenter spring to overcome the bias such that the toggle device and the gear carrier are simultaneously caused to move to the respective other positions, whereby a continuous driving force between the drive gear and output driving ring is achieved, and

two arc control contact elements for changing the position of the toggle device from one position towards the other.

38. (New) A rotary drive sprinkler as set forth in claim 37, wherein

the nozzle assembly further comprises a fixed center member,

the gear carrier includes a bottom plate,

the toggle device includes a circular plate, the bottom plate and the circular plate each having a co-axial center opening fitting over the fixed center member, and the circular plate having a cut-out portion extending from its center opening to a point radially outward therefrom, and the overcenter spring biases the circular plate in one direction or the other and is located in the cut-out portion extending between the center member and the midpoint of said circular plate for acting outwardly on the circular plate.

39. (New) An oscillating transmission unit comprising:

an output driving ring;

two counter rotating gears;

a gear carrier for alternately shifting one or the other of the two counter rotating gears into driving engagement for driving the output driving ring to oscillate the output driving ring;

a first spring for biasing the gear carrier in either direction; and

a second spring for biasing the gear carrier in one of the directions to maintain one of the drive gears in driving engagement with the output driving ring when the biasing force of the first spring against the gear carrier is removed during shifting of the gear carrier to the other direction.

40. (New) An oscillating sprinkler unit comprising:

a sprinkler head mounted for rotation;

a reversible drive assembly for driving said sprinkler head in opposite directions, the reversible drive assembly including

arc control contacts for controlling the arc of oscillation of said sprinkler head, and

an indicator for indicating the arc of oscillation being set in said sprinkler head.

41. (New) An oscillating sprinkler unit comprising:

a sprinkler head mounted for rotation; and

a reversible drive assembly for driving the sprinkler head in opposite directions, the reversible drive assembly including

arc control contacts for controlling the arc of oscillation of the sprinkler head, and

a corresponding movement element for reading the arc of oscillation or for reading a change in the arc of oscillation being set on the sprinkler head.

42. (New) An oscillating transmission comprising:

a ring gear mounted for rotation;

an actuator for causing the ring gear to alternatingly rotate from one direction to another according to a set angle of oscillation;

two contacts mounted by the ring gear for relative movement to vary the angle at which the actuator is actuated, wherein one of the contacts is movable for setting the angle of oscillation; and

a locking arrangement between the angle setting contact and the actuator for allowing movement between the angle setting contact and the ring gear when the angle setting contact is rotated with respect to the ring gear and for preventing movement between the angle setting contact and the ring gear when the angle setting contact is placed in driving engagement with the actuator.

43. (New) An oscillating transmission according to claim 42, wherein

the inner surface of the ring gear is serrated and the angle setting contact comprises a radial projection extending from a cylindrical member positioned radially inwardly of the ring gear,

the radial projection includes a pointer for engaging a serration of the serrated ring gear during movement of the ring gear to drivingly engage the angle setting contact with the actuator, and

the pointer is disengaged from and movable over the serrations of the ring gear when the angle setting contact member is rotated to vary the angle of oscillation.